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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Applicant:

Brian G. Johnson

Serial No.: 10/633,874

Filed: August 4, 2003

For: Lateral Phase Change Memory

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Art Unit: 2826

Examiner: Thomas L. Dickey

Atty Docket: ITO.0047US
(P16202)

Assignee: Intel Corporation

Mail Stop **Appeal Brief-Patents**
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF

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Date of Deposit: September 13, 2006

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Nancy Meshkoff

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REAL PARTY IN INTEREST

The real party in interest is the assignee Intel Corporation.

RELATED APPEALS AND INTERFERENCES

None.

STATUS OF CLAIMS

Claim 1 (Rejected).

Claim 2 (Objected To).

Claims 3-6 (Rejected).

Claim 7 (Objected To).

Claims 8-9 (Canceled).

Claim 10 (Rejected).

Claim 11 (Objected To).

Claims 12-16 (Withdrawn).

Claim 17 (Canceled).

Claims 18-24 (Withdrawn).

Claim 25 (Canceled).

Claim 26 (Withdrawn).

Claims 1, 3-6, and 10 have been rejected and claims 1, 3-6 are the subject of this Appeal Brief.

STATUS OF AMENDMENTS

All amendments have been entered.

SUMMARY OF CLAIMED SUBJECT MATTER

In the following discussion, the independent claims are read on one of many possible embodiments without limiting the claims:

1. A method comprising:
 - forming a substantially planar surface (Figure 9); and
 - forming a phase change material (Figure 11, 36, 38, specification at page 6, lines 12-24) between a pair of horizontally spaced electrodes (Figure 11, 34) formed on said substantially planar surface (specification at page 6, lines 3-11);
 - forming two pairs of electrodes for two spaced cells at the same time (specification at page 3, lines 13-18); and
 - depositing a material (Figure 7, 34) to form said electrodes in a trench (Figure 6, 38, specification at page 6, lines 5-11).

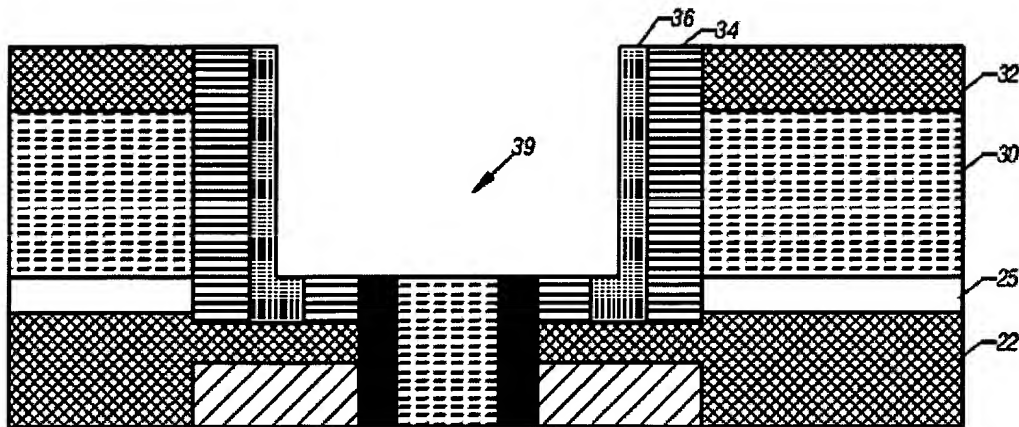


FIG. 9

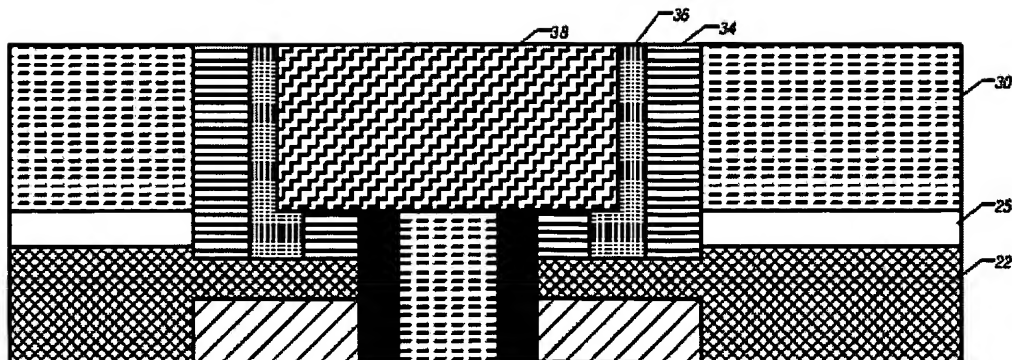
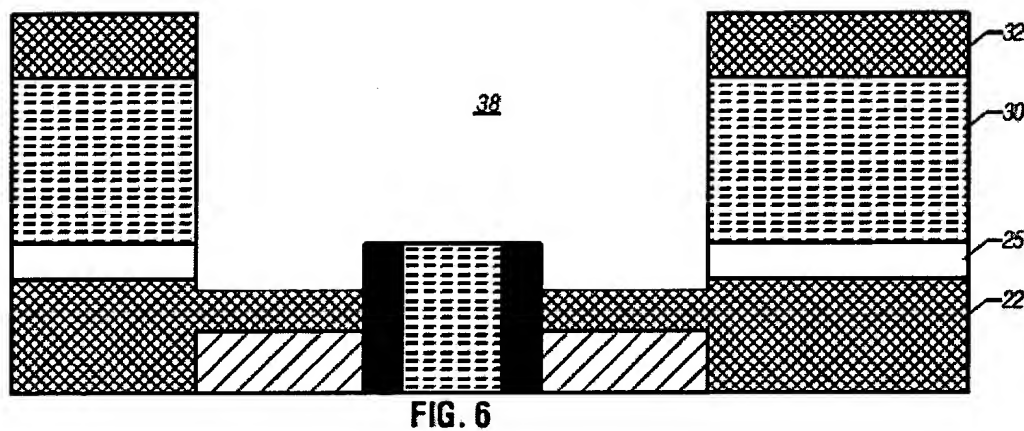
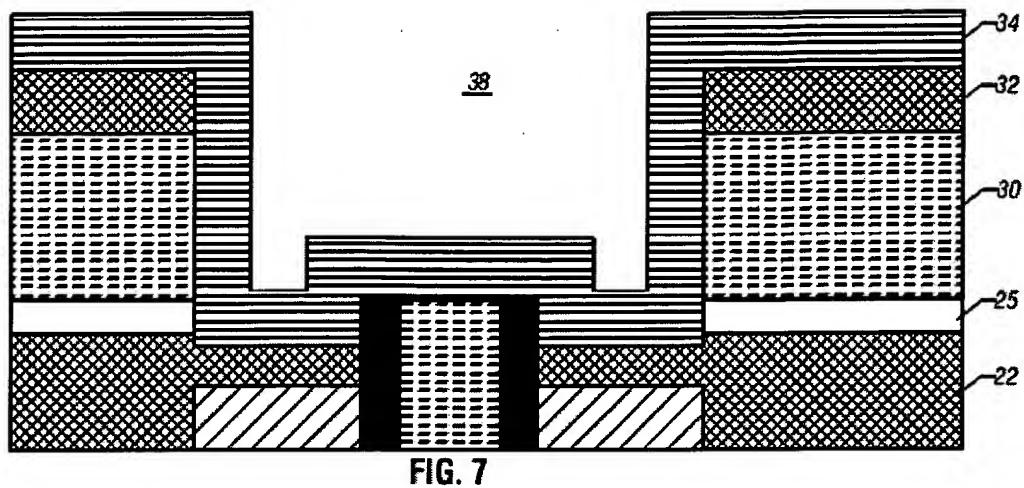


FIG. 11



At this point, no issue has been raised that would suggest that the words in the claims have any meaning other than their ordinary meanings. Nothing in this section should be taken as an indication that any claim term has a meaning other than its ordinary meaning.

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

- A. Are claims 1 and 3-6 anticipated under 35 U.S.C. § 102(e) by Lowrey (U.S. Patent Application Publication No. 2004/0245603)?

ARGUMENT

A. Are claims 1 and 3-6 anticipated under 35 U.S.C. § 102(e) by Lowrey (U.S. Patent Application Publication No. 2004/0245603)?

Review is requested because the construction of the reference posed in the office action is unsupportable.

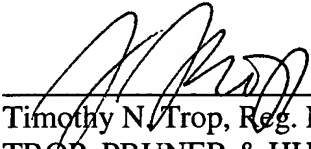
Referring, for example, to the cover of the cited Lowrey patent application, it is the Examiner's position that the memory material 250, situated on top of the two pillar like electrodes 130a and 130b, is between those electrodes. Under any reasonable reading of "between," the memory element 250 is on top of those electrodes, not between them.

The point of the present application is to claim a horizontal or lateral memory element in which the electrodes are horizontally spaced and the phase change material is in between. The cited Lowrey reference is a conventional vertical structure.

Applicant respectfully requests that each of the final rejections be reversed and that the claims subject to this Appeal be allowed to issue.

Respectfully submitted,

Date: September 13, 2006



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CLAIMS APPENDIX

The claims on appeal are:

1. A method comprising:
forming a substantially planar surface; and
forming a phase change material between a pair of horizontally spaced electrodes
formed on said substantially planar surface;
forming two pairs of electrodes for two spaced cells at the same time; and
depositing a material to form said electrodes in a trench.
3. The method of claim 1 including forming a conductive line in a substrate and
forming said material and said electrodes over said substrate.
4. The method of claim 3 including forming a selection device in said substrate.
5. The method of claim 4 including forming a electrical connection from said
substrate to a second electrode.
6. The method of claim 5 including electrically coupling said second electrode to
one of said horizontally displaced electrodes.
10. The method of claim 9 including clearing the bottom of the trench to separate said
electrodes and filling the remaining portion of said trench with the phase change material.

EVIDENCE APPENDIX

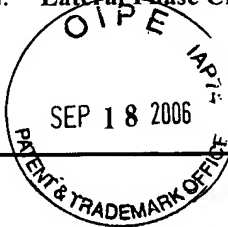
None.

RELATED PROCEEDINGS APPENDIX

None.

TRANSMITTAL OF APPEAL BRIEF (Large Entity)Docket No.
ITO.0047USIn Re Application Of: **Brian G. Johnson**

Application No.	Filing Date	Examiner	Customer No.	Group Art Unit	Confirmation No.
10/633,874	August 4, 2003	Thomas L. Dickey	21906	2826	5272

Invention: **Lateral Phase Change Memory**COMMISSIONER FOR PATENTS:

Transmitted herewith in triplicate is the Appeal Brief in this application, with respect to the Notice of Appeal filed on
July 5, 2006

The fee for filing this Appeal Brief is: **\$500.00**

- ☒ A check in the amount of the fee is enclosed.
- ☐ The Director has already been authorized to charge fees in this application to a Deposit Account.
- ☒ The Director is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. **20-1504**
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Signature

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Dated: **September 13, 2006**

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(Date)

Signature of Person Mailing Correspondence

Nancy Meshkoff

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cc: